

CLAIMS.

1. Aluminium-magnesium alloy product for welded mechanical construction, having the following composition, in weight percent:-

5	Mg	3.5 - 6.0	
	Mn	0.4 - 1.2	
	Zn	0.4 - 1.5	
	Zr	0.25 max.	
	Cr	0.3 max.	
10	Ti	0.2 max.	
	Fe	0.5 max.	
	Si	0.5 max.	
	Cu	0.4 max.	
	one or more selected from the group:		
		Bi	0.005 - 0.1
15		Pb	0.005 - 0.1
		Sn	0.01 - 0.1
		Ag	0.01 - 0.5
		Sc	0.01 - 0.5
		Li	0.01 - 0.5
20		V	0.01 - 0.3
		Ce	0.01 - 0.3
		Y	0.01 - 0.3
		Ni	0.01 - 0.3
	others	(each)	0.05 max.
25		(total)	0.15 max.
	balance	aluminium.	

2. Aluminium-magnesium alloy product according to claim 1, wherein the Bi content is in the range of 0.01 to 0.1 wt.%, and preferably 0.01 to 0.05 wt.%.

3. Aluminium-magnesium alloy product according to claim 1 or 2, wherein the Li content is in the range of 0.1 to 0.3 wt.%.

4. Aluminium-magnesium alloy product according to any one of claims 1 to 3, wherein the Mg content is in the range of 4.0 to 5.6 wt.%
5. Aluminium-magnesium alloy product according to claim 4, wherein the Mg content is in the range of 4.6 to 5.6 wt.%.
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6. Aluminium-magnesium alloy product according to any one of claims 1 to 5, wherein the Zn content is in the range of 0.4 to 0.9 wt.%.
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7. Aluminium-magnesium alloy product according to any one of claims 1 to 6, wherein the Zr content is in the range of 0.05 to 0.25 wt.%.
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8. Aluminium-magnesium alloy product according to any one of claims 1 to 7, wherein the product is provided in the form of a rolled product, an extruded product or a drawn product.
9. Aluminium-magnesium alloy product according to any one of claims 1 to 8 having a temper selected from a soft temper and a work-hardened temper.
10. Welded structure comprising at least one welded plate or extrusion made of aluminium-magnesium alloy product according to any one of claims 1 to 9.
11. Welded structure according to claim 10, wherein the proof strength of the weld of said plate or extrusion is at least 140 MPa.
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12. Welded structure according to claim 10, having an improved resistance to exfoliation resistance when sensitised for at least 10 days at 120°C.
13. Welded structure according to claim 10, having an exfoliation resistance of PA or better in an ASSET test in accordance with ASTM G66 and when sensitised in a soft temper for 20 days at 120°C.
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14. Welded structure according to claim 10, having an exfoliation resistance of PA or better in an ASSET test in accordance with ASTM G66 and when sensitised in a work hardened temper for 16 days at 100°C.

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15. Welded structure according to any one of claims 10 to 14, wherein the welded structure is a marine vessel.

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16. Welded structure according to any one of claims 10 to 14, wherein the welded structure is a container for land transportation.

17. Use of an aluminium-magnesium alloy product according to any one of claims 1 to 16 at an operating temperature greater than 80°C.